

**Journal of the
Geological Society
of Australia**



E
40
413

Volume 30, 1983

Geological Society of Australia Incorporated

President—R. D. Gee

Vice-Presidents—C. D. Branch, M. J. Rickard

Hon. Secretary—R. E. Smith

Hon. Treasurer—K. K. Sappal

Hon. Administrative Officer—W. E. Foskett

Hon. Editor—R. H. Vernon

Editorial Board—R. A. Binns, J. M. Bowler, A. C. Cook, P. J. Cook, D. Denham, M. A. Etheridge, J. Ferguson, A. D. T. Goode, D. C. Green, D. I. Groves, H. J. Harrington, P. A. Jell, M. H. Johnstone, I. McDougall, W. V. Preiss, S. E. Shaw, D. H. Stapledon, J. J. Veevers, K. L. Williams, C. J. L. Wilson.

Address editorial matters to
the Hon. Editor:

Assoc. Prof. R. H. Vernon
School of Earth Sciences
Macquarie University
North Ryde NSW 2113

Address other matters to the
Business Manager, Miss L. C.
Tuckwell, at the Society's office:
Room 1001
Challis House
10 Martin Place
Sydney 2000

ISSN 0016-7614

Price to non-members \$15.00 per issue

CONTENTS

VOLUME 30, No. 1

A. G. SPENCE & D. M. FINLAYSON:	
The resistivity structure of the crust and upper mantle in the central Ero-	
manga Basin, Queensland, using magnetotelluric techniques - - -	1
A. R. RAMSDEN:	
Microscopic petrography of oil shales at Julia Creek, northwestern Queens-	
land - - - - -	17
G. NEIL PHILLIPS & DAVID I. GROVES:	
The nature of Archaean gold-bearing fluids as deduced from gold deposits	
of Western Australia - - - - -	25
C. J. OATES & R. C. PRICE:	
Geochemistry of the Jemba Rhyolite, northeastern Victoria - - -	41
J. M. W. RYNN & I. D. REID:	
Crustal structure of the western Arafura Sea from ocean bottom seismo-	
graph data - - - - -	59
D. F. BRANAGAN:	
The Sydney Basin and its vanished sequence - - - - -	75
W. D. BIRCH:	
Zincian dolomite from Broken Hill, New South Wales - - - -	85
A. GOEDE & R. S. HARMON:	
Radiometric dating of Tasmanian speleothems—evidence of cave evolution	
and climatic change - - - - -	89
R. J. F. JENKINS, C. H. FORD & J. G. GEHLING:	
The Ediacara Member of the Rawnsley Quartzite: the context of the Edia-	
cara assemblage (late Precambrian, Flinders Ranges) - - - -	101

VOLUME 30, No. 2

MICHAEL J. GARRATT: Silurian to Early Devonian facies and biofacies patterns for the Melbourne Trough, central Victoria	121
MALCOLM T. MCCULLOCH, WILLIAM COMPSTON & DERECK FROUDE: Sm-Nd and Rb-Sr dating of Archaean gneisses, eastern Yilgarn Block, Western Australia	149
MALCOLM T. MCCULLOCH, KENNETH D. COLLERSON & WILLIAM COMPSTON: Growth of Archaean crust within the Western Gneiss Terrain, Yilgarn Block, Western Australia	155
DESMOND F. LASCELLES: Inliers of banded iron-formation in the Proterozoic Wyloo Group sediments near Paraburdoo, Western Australia	161
I. R. FLETCHER, S. J. WILLIAMS, R. D. GEE & K. J. R. ROSMAN: Sm-Nd model ages across the margins of the Archaean Yilgarn Block, Western Australia; northwest transect into the Proterozoic Gascoyne Province	167
N. J. MCNAUGHTON & ALLAN F. WILSON: ¹³ C-rich marbles from the Proterozoic Einasleigh Metamorphics, northern Queensland	175
C. R. M. BUTT: Aluminosilicate cementation of saprolites, grits and silcretes in Western Australia	179
C. F. PAIN: Geomorphology of the Barrington Tops area, New South Wales	187
I. L. WILLIS, R. E. BROWN, W. J. STROUD & B. P. J. STEVENS: The Early Proterozoic Willyama Supergroup: stratigraphic subdivision and interpretation of high to low-grade metamorphic rocks in the Broken Hill Block, New South Wales	195
ROBERT G. BARNES: Stratiform and stratabound tungsten mineralisation in the Broken Hill Block, N.S.W.	225
R. J. TINGEY, IAN MCDUGALL & A. J. W. GLEADOW: The age and mode of formation of Gaussberg, Antarctica	241
M. C. BROWN: Discussion: Origin of coastal lowlands near Ulladulla, N.S.W.	247
R. W. YOUNG & IAN MCDUGALL: Reply: Origin of coastal lowlands near Ulladulla, N.S.W.	248

CONTENTS

VOLUME 30, No. 3

L. K. RIXON, W. R. BUCKNELL & M. J. RICKARD:	
Mega kink folds and related structures in the Upper Devonian Merrimbula Group, south coast of New South Wales - - - - -	277
J. W. SHERATON:	
Geochemistry of mafic igneous rocks of the northern Prince Charles Mountains, Antarctica - - - - -	295
J. G. JONES & J. J. VEEVERS:	
Mesozoic origins and antecedents of Australia's Eastern Highlands - -	305
P. S. MOORE & R. M. HOCKING:	
Significance of hummocky cross-stratification in the Permian of the Carnarvon Basin, Western Australia - - - - -	323
I. R. FLETCHER, S. A. WILDE, W. G. LIBBY & K. J. R. ROSMAN:	
Sm-Nd model ages across the margins of the Archaean Yilgarn Block, Western Australia—II; southwest transect into the Proterozoic Albany-Fraser Province - - - - -	333
D. J. CLARKE & I. G. ELIOT:	
Onshore-offshore patterns of sediment exchange in the littoral zone of a sandy beach - - - - -	341
C. MCA. POWELL:	
Tectonic Relationship between the Late Ordovician and Late Silurian palaeogeographies of southeastern Australia - - - - -	353
Y. BONE:	
Interpretation of magnesites at Rum Jungle, N.T., using fluid inclusions -	375

VOLUME 30, No. 4

J. A. HALLBERG & P. WILSON:

Relative timing of igneous intrusion in the Eucalyptus area, northeastern
Yilgarn Block, Western Australia - - - - - 383

R. A. CALLEN:

Late Tertiary 'grey billy' and the age and origin of surficial silicifications
(silcrete) in South Australia - - - - - 393

A. STOLZ & K. LAMBECK:

Geodetic monitoring of tectonic deformation in the Australian region - 411

G. BOCK & D. DENHAM:

Recent earthquake activity in the Snowy Mountains region and its relation-
ship to major faults - - - - - 423

G. R. TAYLOR:

Copper and gold in skarn at Brown's Creek, Blayney, N.S.W. - - - 431

R. C. PRICE, W. M. BROWN & C. A. WOOLARD:

The geology, geochemistry and origin of late-Silurian high-Si igneous
rocks of the Upper Murray Valley, NE Victoria - - - - - 443

P. J. EADINGTON & K. KINEALY:

Some aspects of the hydrothermal reactions of tin during skarn formation 461

K. A. ERIKSSON:

Siliciclastic-hosted iron-formations in the early Archaean Barberton and
Pilbara sequences - - - - - 473

C. M. BROWN:

Discussion: A Cainozoic history of Australia's Southeast Highlands - - 483

J. G. JONES & J. J. VEEVERS:

Reply: A Cainozoic history of Australia's Southeast Highlands - - - 487



Digitized by the Internet Archive
in 2023

